From: Brewster Kahle <brewster@Think.COM>
Subject: Wide Area Information Servers: Internet Alpha release

Wide Area Information Servers: Internet Alpha Release

This note is to announce the Alpha release of the WAIS Internet software, a public domain package for doing information retrieval over networks. It is available via anonymous FTP from think.com (131.239.2.1) in /public/wais/wais-8-aXX.tar.Z.

The idea behind this software is to make it easy for people to access diverse types of information from many different servers. WAIS uses a standard protocol (Z39.50-1988) to interactively send questions from clients to servers. We hope to help those that want to make interesting user interfaces, and servers, as well as those that just want to use the system to answer questions.

This is an alpha release. It is meant for developers of clients and servers as well as those that like to write bug reports. People that just want to use the system should wait a month for the beta release.

In this release is source code for:

- \* Server code: There is code to index text and picture files.
- \* Protocol code: based on Z39.50-1988 using the internet.
- \* Clients code: User interfaces for contacting servers
  - \* GNU emacs interface
  - \* simple shell interface
  - \* Mac interface (in separate WAIStation file)
  - \* tool kit for making your own interfaces
  - \* X interface (largely untested version)

## To come:

- \* Directory of servers: This will be a network service that will list existing servers and how to contact them. This is dependent on our internet connection, but should be up soon.
- \* A Connection Machine server with some patent information, the CIA factbook, and some Biomedical abstracts to serve as example servers. This should be up before the Beta period starts.
- \* More servers (from Thinking Machines and you)

Beta release: (planned for early April)
\* Hopefully some of you will create a few servers so that the beta users
will find interesting things.

Announcements such as this one are sent to wais-interest@think.com. If you do not want to be on this list, please send a note to wais-interest-request@think.com. wais-discussion@think.com is a new list for informal discussion of electronic publishing issues such as copyrights, privacy, etc. Please add yourself (wais-discussion-request@think.com) and

This software release is public domain but comes with no guarantees. Therefore this code can be used, modified, sold, given away or anything. We do hope that others will send in enhancements and fixes so that everyone can benefit from them.

Bugs and comments to bug-wais@think.com.

-brewster and the wais crew

send in entries.

From: Brewster Kahle <brewster@Think.COM> Subject: How to get the ball rolling

(this is the first message to wais-discussion@think.com, I have CC'ed it to wais-interest so that anyone that wants to be on this list, can send a note to wais-discussion-request@think.com).

The attempt of the WAIS (Wide Area Information Servers) system is to pave the way for users to find diverse information from a large number of

sources. We have tried to do this in a few ways:

\* give away sample software so that a minimal system (either

servers or clients) for no money.

\* support a directory of servers so that those that want to start a server can easily do so, and have others find out about it.

\* use a public protocol (Z39.50-1988) so that there will not be

any capitalist rivalry aver the protocol.
 \* help those that want to use parts of the software to integrate different IR engines and user interfaces (fprofit or not).

But to make this successful, we have to have great data available. Dow Jones is making DowQuest available as a WAIS server, but over their own network since they charge. We are currently restricted on the internet from making for-profit servers. This makes it difficult to get many data sources. I expect this to change, one way or another, but at this point this is were we are.

Therefore, what databases can we run that would spark interest, imaginations and be useful? The protocol can transfer files of any kind: text, pictures, audio, midi, video, etc.

Over the last year, I have talked with many people that were theoretically interested in making their information available over the internet for free.

Here are some of the databases that I know will be available shortly:

1) On the Connection Machine in Cambridge (in a couple weeks) King james bible, Some patents, Bio-medical abstracts, World factbook 2) at Quake.think.com (in a couple of weeks):

directory of servers wais documentation jargon file (the Hackers dictionary) wais mail archives

Possible servers by others (as these come up, you can find out about them in the directory of servers and notices will be posted to wais-interest) Poetry server at MIT Cosmic government software archives catalog at the U of Georgia Bug reports on Charles Leiserson's book served from MIT Neuron Digest Archives from HP

What else do you suggest? Possibilities: Arpanet mailing lists archives such as RISKS Pictures of this and that All patent abstracts Voting records of politicians netnews archives

To do these we need someone that the inclination and disk space to run a server. Hopefully the tools will make it easier and easier to make a servers. Currently it is not too hard.

If you are interested, please sent a note to this list or to me personally.

-brewster brewster@think.com From: Mitch Kapor <mkapor@eff.org>
Subject: Re: How to get the ball rolling

We would like to (and are planning to) create a WAIS server on eff.org which will contain documents relating to subjects and controversies on the electronic frontier, including:

civil liberties and computers generally computer crime laws search and seizure involving computers censorship freedom of speech privacy

Also,

information infrastructure & development of national networks access to the net and network services  $% \left( 1\right) =\left\{ 1\right\} =\left\{ 1\right$ 

Mitch Kapor mkapor@eff.org

From: bzs@world.std.com (Barry Shein) Subject: How to get the ball rolling

We're certainly looking at using WAIS to deal with our OBI collection.

I would like to do something with ClariNet tho information distribution would be limited by the license obviously (but it doesn't mean the software can't be made available to other clarinet sites.)

Perhaps ClariNet is looking at this themselves? Are they on this list? 'They probably should be (Brad?)

-Barry Shein

Software Tool & Die | bzs@world.std.com Purveyors to the Trade | Voice: 617-739-0202 | uunet!world!bzs | Login: 617-739-WRLD From: "Fen Labalme" <flabalme@us.oracle.com> Subject: Re: How to get the ball rolling

Reply-To: fen@oracle.com Original-To: wais-discussion

I am currently using WAIS on a fairly large text base of Peace and Environment related files on a local net. I am planning on making this available on the Internet (someday). On another front, I will be talking to friends at PeaceNet / EcoNet and the WELL to see if either of those groups might be interested in putting a server on their systems, though I am not sure either yet has Internet access.

If anyone else is interested in helping with this project (what is really needed, of course, is an Internet connected machine with lots of spare disk space (what else?!!)) please email me.

Thanks, Fen

fen@oracle.com Oracle Corporation WE ARE EVERYWHERE JUST SAY "KNOW"

fen@well.sf.ca.usa Broadcatch Technologies

"What if you could get \*exactly\* the news and information you wanted for free?" Copyright 1991 Fen Labalme; you may redistribute only if your recipients may.

From: aha@mathsoft.COM (Greg Aharonian) Subject: Economics of information and WAIS

## WAIS - We'll Attempt Information Socialism

One concept, extremely relevant to WAIS (but has been ignored by the computer community for years in general), is the economics of creation and sale of knowledge. To me, WAIS is the greatest thing around, the ultimate extension of networks, large disk storage systems, information retrieval and goony user interfaces. However, I doubt highly that anything of general interest will be channeled through WAIS, because little of general interest has channeled through these earlier forms of technology (at a reasonable cost, say under fifty dollars per entity; tape or CDROM), other than your large collections of easily collectable information, such as abstracts, pictures of nudes and 10,000 printer utilities for the PC.

The problem, as I see it, is that preparation of meaningful information, organized in a way to help people get a better understanding of some facet of reality, is an expensive undertaking, both in actual costs to collect and organize the material, and indirectly, in terms of acquiring the skills. The problem is further complicated by the fact that much information is copyrighted. Thus to organize, prepare and properly license an interesting collection of information is an economic venture of dubious return. And if the return is dubious, people will be less likely to spend their money (or try to acquire someone else's money) on an interesting information project that could be well exploited using WAIS.

Many of the ideas behind WAIS are paralleled in other industries in other forms, and reflect that all of these undertakings are economic. (Which is less apparent in the academic world, who spend less of their own money). How likely are people going to be when told "Do a search on WAIS for information — its hooked up to all of the public and commercial sources of information — though I can't tell you how much it will cost"? This confusion is evident in the tremendous difference between growth in hardware and software capability per dollar, and raw information available per dollar.

Case in point. I maintain a database of information on all of the source code available from government and university sources around the world, currently over 15,000 programs. It is a database of all of the information that flows through Internet, COSMIC, NTIS, DoD, DoE, NASA, and everything else that falls through the cracks. I have spent many years and many dollars developing this database, and I guard it carefully.

I welcome an opportunity to post the titles and abstracts in my database to a WAIS site. However there are problems. First, I will not be posting references to the software - only descriptions. If you want to acquire the programs, you have to come to me, this is my business. Much of this can be done over the networks, but will I be violating informal rules of noncommercial use? And if I have to pay a fee, what will be the fee level, and will I be able to profit by paying these fees? Second, some of the information in my databases is copyrighted. As long as I keep the information to myself (and clients) noone cares - but if I start making it widely available - what troubles and costs will I incur?

Think of it, a database of information on all publicly available, applications source code - solutions to problems. Other than myself, noone has tried to put together a similar collection, even for distribution on more primitive devices such as CD-ROMS and file servers. The reason - cost and expertise - which faces developers of any other collection of similarly useful information. Internet is great, until you try setting up one at your own expense (like Compuserve).

For myself, and in general, what liabilities might I incur if the information I provide leads to, or is associated with, some legal action? Will I be able to make enough money to maintain and add additional information?

Having spent many years following the software reuse efforts (and so to information reuse efforts), I have been amazed at the continual

fixation on just the technical issues (of which WAIS is a great example of a great solution to a small amount of the problem), at the expense of treating the social and economic issue. Information is an commodity that is different from many existing commodities - the current economic institutions are not wholely compatible.

I think WAIS can be a good opportunity to start addressing the economic and social aspects of large scale, multi site information transfer. My belief is that the most important problem WAIS efforts will face will be in these areas. Other problems, such as porting and capabilities and enhancements — I feel will be easily handled. WAIS is one half of a socialist information utopia — being thrust into a free market system. One must give.

Greg Aharonian
Source Translation & Optimization
aha@mathsoft.com or srctran@world.std.com
617-489-3727

From: gordon linoff <gordon@Think.COM> Subject: Mail server on cmns!

The online update for mail messages is now available on the public server (cmns). Currently, all mail messages sent there are going into a common source, PUB.

The only mail list being sent there is an external political list piped into Thinking Machines. If you know of any other appropriate lists, send them to either:

server-pub@think.com server-pub@cmns

to include them into the PUB source.

It is also possible to set up separate sources on cmns with their own mailing lists (akin to server-fun and server-tmc on the in-house server). If you would like to do such a thing, contact me!

--gordon (x2070)

From: "The desk of ..." <adamg@Think.COM> Subject: Possible add.

Perhaps someone could convince the Telephone company to put thier yellow pages as a source? Or maybe just an add agency. Here's looking to the future.

Dave K. (adamg)

From: Sean Colbath <sean@Think.COM> Subject: Re: Possible add.

- > Date: Wed, 13 Mar 91 15:18:57 EST
- > From: "The desk of ... " <adamg@Think.COM>
- > Subject: Possible add.
- > Perhaps someone could convince the Telephone company to put thier yellow
- > pages as a source? Or maybe just an add agency.
- > Here's looking to the future.
- > Dave K. (adamg)

It would be nice, but I wouldn't hold my breath... The phone company \*sells\* stuff like that for profit. Plus, I don't see it as a real kicker for WAIS -- I generally know the name of the person I want to look up, so searching is easy, and I don't see much room for relevance feedback. The only neat thing would be that you would essentially have a "backwards phone book," of the kind that Jim Rockford always used. ;-)

From: "The desk of ..." <adamg@Think.COM> Subject: Possible add.

From: Sean Colbath <sean@Think.COM>

- > Date: Wed, 13 Mar 91 15:18:57 EST
- > From: "The desk of ..." <adamg@Think.COM>
- > Subject: Possible add.
- > Perhaps someone could convince the Telephone company to put thier yellow
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## -Sean

It might be possible to search by number with that on wais, but what I was referring to was, say I want to go to a reasaurant, I search for such, then use relevancy to select for, hmm location, price, type of food, etc. Or perhaps I need a new car, or ... well you get the picture I hope. Dave K. (adamg)

From: krall@ul.msc.umn.edu (Tom Krall - TMC)

Subject: UMinn

Any possibilities of adding these libraries ?

Thanks

-TK

From: becky@msc.edu (Rebecca Savoie)

If that hard-to-find book or journal is not at the library, you can check the campus card catalogs listed below. Many have inter-library loan agreements with the University.

Boston U:

telnet library.bu.edu

Harvard:

telnet hollis.harvard.edu

MTT:

telnet library.mit.edu

Northwestern:

telnet pacx.acns.nwu.edu, type 60

Resselaer Polytechnic:

telnet infotrax.rpi.edu

U Calif:

telnet 31.1.0.1

U Colorado: telnet arlo.colorado.edu, type ARLO

UI Champgn: telnet garcon.cso.uiuc.edu 620

UI Chicago: tn3270 uicvm.uic.edu, type DIAL PVM, select NOTIS U Mich: telnet cts.merit.edu, type MIRLYN

U Minn:

telnet lumina.lib.umn.edu (128.101.92.3).

U Utah:

tn3270 lib.utah.edu, type DIAL UNIS

U Penn:

telnet pennlib.upenn.edu

U Wisc:

tn3270 blue.adp.wisc.edu, select NLS1

Colorado Alliance of Research Libraries: telnet pac.carl.org Geographic name server (for zip codes): telnet martini.eecs.umich.edu 3000

## | U Calif: telnet 31.1.0.1

Is called melvyl.ucop.edu; melvyl.berkeley.edu [31.1.0.11] also works. Plus, internal to the Berkeley campus (and possibly the UC system) is gladis.berkeley.edu [128.32.159.13], which is only good if you have an account on a machine in their domain. I forgot the respective advantages and disadvantages of the two systems at Cal.

In addition to dialup access, you can reach U library card catalog through telnet. The host name is lumina.lib.umn.edu (128.101.92.3). terminal type 1. VT 220

To exit from telnet at menu -- type ctrl} -- then type "quit"

From: klong@wilkins.iaims.bcm.tmc.edu (Kevin Long)

Subject: Re: Possible add.

>Perhaps someone could convince the Telephone company to put thier yellow >pages as a source?

>Dave K. (adamg)

A much more accessible document that might be very useful is the Internet Resources Guide, a document describing in some detail a relatively large number of sites around the country whose administrators allow anonymous access.

Also, the New Jersey Information Network's FTP list would be an interesting one to use. Both are on-line already.

Kevin

From: gordon linoff <gordon@Think.COM> Subject: Possible add.

From: Sean Colbath <sean@Think.COM> Date: Wed, 13 Mar 91 16:23:37 EST

- > Date: Wed, 13 Mar 91 15:18:57 EST
  > From: "The desk of ..." <adamg@Think.COM>
- > Subject: Possible add.

- > Perhaps someone could convince the Telephone company to put thier yellow
- > pages as a source? Or maybe just an add agency.
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Hmmm. France does exactly that; it's called minitel. Telephone companies spend a fortune on printing and distribution costs every year -- even free access from a sufficient number of users might save them money. There are many other advantages.

Online telephone books would also always be up-to-date. In an online yellow pages directory, companies could easily be listed under several headings. With a more flexible database, other fields (such as zip codes and work telephone numbers) could be added. A voice-activated interface would give blind people access to telephones books.

The biggest advantage in France, though, is that you can get the telephone number of anyone anywhere in France from anywhere. Such a service should be available world-wide.

I think automated telephone books are a great idea. I don't know how the US functions without them.

--gordon

From: Sean Colbath <sean@Think.COM> Subject: Re: Possible add.

> From: gordon linoff <gordon@Think.COM>
> Date: Wed, 13 Mar 91 18:18:09 EST

Subject: Possible add.

>

> > >

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-Sear

> Hmmm. France does exactly that; it's called minitel.
> Telephone companies spend a fortune on printing and
> distribution costs every year -- even free access from a
> sufficient number of users might save them money. There are
> many other advantages.

Yup, I had forgotten about Minitel. I was also more thinking about white pages, not yellow pages. Unfortunately, I also doubt that Ma Bell has the yellow pages in a format suitable for online consumption (the ads that is, which is the interesting part); I suspect it's all cut-and-paste ad copy. However, I will call Nynex tomorrow and see if they will {give out, sell} the numeric info and the categories.

> I think automated telephone books are a great idea. I don't > know how the US functions without them.

Oh, you can also get this info from Compuserve at some phenomenal rate/minute. Forgot about that one.

-Sean

From: gordon linoff <gordon@Think.COM> Subject: Possible add.

From: Sean Colbath <sean@Think.COM> Date: Wed, 13 Mar 91 18:23:45 EST

- > From: gordon linoff <gordon@Think.COM>
  > Date: Wed, 13 Mar 91 18:18:09 EST
  > Subject: Possible add.

- > I think automated telephone books are a great idea. I don't
- > know how the US functions without them.

Oh, you can also get this info from Compuserve at some phenomenal rate/minute. Forgot about that one.

-Sean

Oops, I forgot to say free. In France not only is connect time free, but they also give you the keyboard and screen for free (instead of a phone book).

--gordon

From: "The desk of ..." <adamg@Think.COM>

Subject: UMinn

From: ul.msc.umn.edu!krall@thinksf.think.com (Tom Krall - TMC)

Any possibilities of adding these libraries ?

Thanks -TK

Date: Wed, 13 Mar 91 16:03:52 -0600

From: becky@msc.edu (Rebecca Savoie)

To: krall@ul.msc.edu

If that hard-to-find book or journal is not at the library, you can check the campus card catalogs listed below. Many have inter-library loan agreements with the University.

There is someone in canada who spends his time getting into school libraries electronically. Perhaps we can enlist in his aid?

8-)
Dave K. (adamg)

From: bzs@world.std.com (Barry Shein)

Subject: Possible add.

Re: phone books

NYNEX sells I believe a CD/ROM distribution for something like \$10K/month, not sure what you can do with it once you own it (and I'm 99% sure that's the whole USA.) They sent me an ad for that a while back, guess a call to NYNEX would clarify this.

US West recently appealed for a tariff for selling directory information as data and the ruling was something like they could sell only exactly what their own information operators (?) see, but can't sell applications or reformat the data especially. The point being that they pretty much have to resell raw-ish data thru third-parties, I assume that's due to monopoly tariff regulations. The price wasn't that high, but it was sort of funky (like \$150 per "id", which I guess is like a login/password, then something per lookup, and so on and so on.) So it ain't free, the question is would someone, or some companies, pay for subscriptions to something like this? Anyhow...

There's some outfit that keeps sending me junk mail about 90M phone numbers and addresses for \$695/copy or \$995 for a "network license", I wonder if they'd consider the Internet as my "network"? Maybe I could find the ad around here, wish I could grep the paper on my desk.

What you really want with such data is things like soundex and other fuzzy matching schemes (I've modified a soundex algorithm recently to be pretty easy to use with most anything and would probably work fine as an adjunct to WAIS, you just pre-store the soundex integers and what they will match, calculate it for what you want now, and go look it up, but it ain't the be-all, end-all, it's very fuzzy and matches all sorts of odd things sometimes, or misses things, maybe it needs tuning.)

-Barry Shein

Software Tool & Die | bzs@world.std.com Purveyors to the Trade | Voice: 617-739-0202 | uunet!world!bzs | Login: 617-739-WRLD From: WGBH-TV (Information Age) <wgbh@media-lab.media.mit.edu>Subject: Minitel, Ma bell and Yellow pages

Regarding having the Yellow Pages on-line, people have written:

- >> Perhaps someone could convince the Telephone company to put thier yellow
- >> pages as a source? Or maybe just an add agency.
- >> Here's looking to the future.
- >> Dave K. (adamg)

>It would be nice, but I wouldn't hold my breath... The phone company >\*sells\* stuff like that for profit.

The fact of the matter is that the RBOCs (Regional Bell Operating Companies) have been prohibited from providing that kind of information on-line. This is part of the MFJ (or Modified Final Judgement) handed down by Judge Green.

Although the legal reasoning is beyond me, my impression is that it was done to prevent the somewhat massive RBOCs from coming in and dominating/monopolizing a fledgeling industry. Needless to say the RBOCs have spent lots of money lobbying to overturn that decision.

With regard to the french Minitel (or Teletel) system, the french government spent about \$100 million giving away the free (dumb) terminals in order to 'prime the pump'. That is, they had to get enough people on line to make it profitable for other information providers. Even giving away the telephone directory for free, it took a few years before the system took off, and when it did it happened suddenly. Once critical mass is reached...

The french govt. is expecting to finally turn a profit on minitel in 1990/1991.

All of this is to say that a telephone directory, or yellowpages is a great idea, but it would have to be done outside the RBOCs.

-Dave Marvit wgbh@media-lab.media.mit.edu

usual disclaimers...

From: Steve Cisler <sac@apple.com>

Subject: Re: UMinn

Tom Krall asked "Any possibilities of adding these libraries?" followed by a list of Internet sites.

These library are running on very different systems with structured MARC records residing on mainframes and minis. I don't think they would fit on current WAIS implementations, but at Apple Library we are playing our catalog and might like to try relevance feedback with them.

Steve Cisler Apple Library 10381 Bandley Dr. MS: 8C Cupertino, CA 95014 From: Steve Cisler <sac@apple.com> Subject: Re: Possible add.

Gordon, Teletel (Minitel) is not giving away terminals any more, but the lease is quite low. You CAN still get phone books, contrary to what people say, but I'm sure it is discouraged if Minitel is available.

From: klong@wilkins.iaims.bcm.tmc.edu (Kevin Long)

Subject: Re: UMinn

--- Forwarded mail from Steve Cisler <apple.com!sac@think.com>

Tom Krall asked "Any possibilities of adding these libraries?" followed by a list of Internet sites.

These library are running on very different systems with structured MARC records residing on mainframes and minis. I don't think they would fit on current WAIS implementations, but at Apple Library we are playing our catalog and might like to try relevance feedback with them.

--- End of forwarded message from Steve Cisler <apple.com!sac@think.com>

As I recall, Melvyl is Z39.50-compatible, or soon-to-be. Since this protocol pops up in the WAIS code as memory serves, then might there be some prayer of this making it easier to slurp over and index records from a card catalog? Also, the Texas Medical Center library regularly produces a CD-ROM listing all of its holdings. We use a library system from a company with a large number of subscribing libraries that produces CD-ROMs for each of its member institutions. For the life of me, I can't remember the name off the top of my head.

There are also other library consortia that produce such products... so I wouldn't write Tom's idea off so quickly. In fact, the Library of Congress produces standard records for every publication with an ISBN or ISSN number (which is basically EVERY book or serial). They've done this since the 20's, and there is a big industry in selling the little cards and records that Steve mentions (MARC) that end up in card catalogs and on-line systems (ever wondered if someone typed those up at every library?). These records could be indexed and cross-referenced with holding information of various participating libraries to produce a WONDERFUL resource listing holdings across the nation. So interfacing with these systems might not be easy, but an occasional dump wouldn't be out of the question, and that would be very useful itself.

I can help point any interested folks in the right direction.

Regards,

Kevin

\_\_\_\_\_

From: bzs@world.std.com (Barry Shein)

Subject: UMinn

I have some familiarity with some of these library systems (e.g. TOMUS.)

I'm not sure what is meant by "putting them under WAIS", I was stopped by that also ("what does that mean???")

Mostly these systems are analogous to WAIS themselves, well, big indices mostly, the unfortunately not network oriented at all (except by terminal emulation, typically they use the "milking machine" approach, you wire a terminal server to their serial ports, back to back.)

This was one of the things I never liked about the major products in that field. But it is a very difficult thing, you don't just slap together a library system with a few shell scripts!

Compatability with things like MARC records (which Steve Cisler just mentioned) and interface to circulation, acquisitions, and other functions of the library are important.

This doesn't mean that someone couldn't use their same data and overlay a WAIS-server, of course you could, even MARC formats are not terribly hard to understand. But it would take some cooperation from the people who run the system (I believe TOMUS and some others even support TCP/IP, tho they tend to have proprietary operating systems and run in specialized configurations.)

Perhaps someone knows someone at the Boston Library Consortium which is putting their stuff onto the Internet with (Nearnet I believe?) They might be interested, it's a neat project, tho they right now seem heavily weighted towards terminal emulation (telnet etc.) I spoke with them a while back, someone at Boston Public Library, nice folks.

I'm also supposed to speak with a group of Boston-area librarians in May about networking issues. If anyone has anything they would like me to communicate please do send your thoughts along.

-Barry Shein

Software Tool & Die | bzs@world.std.com | uunet!world!bzs Purveyors to the Trade | Voice: 617-739-0202 | Login: 617-739-WRLD

P.S. What the heck, here's a MARC record, this is how Library of Congress sends out their tapes:

Item 1. (Record Number = 813991)

000 = 00632nam 2200193Ii 450

001 = ocm02772436

005 = 19910104151212.0

008 = 770302c19581957nyu

00011 eng d

040 = \$aAKR\$cAKR\$dm.c.\$dBOS

049 = \$aBOSS

090 = \$aPS1302\$b.N373 1958

100 = 10\$aTwain, Mark,\$d1835-1910\$wcn

240 = 10\$aShort stories\$wnm

245 = 14\$aThe complete short stories of Mark Twain\$bnow collected for the first time /\$cEdited with an introd. by Charles Neider.

260 = 0 \$aNew York : \$bBantam Books, \$c1958, c1957.

300 =\$axxii, 679 p.;\$c18 cm.

490 = 0 \$aBantam Classic ; SC3

949 = \$aBOSS\$c1\$z11719015216155

999 = \$aBOSS\$1MUGA

From: Steve Cisler <sac@apple.com> Subject: New article on the NREN

I got permission to re-distribute an article from the current

Whole Earth Review. It is by

Roger Karraker and is entitled "Highways of the Mind".

You can use anonymous ftp to get it from ftp.apple.com (note that is different from apple.com). It's in the alug directory. Here is a brief intro to the 29 kb file:

A quiet but crucial debate now under way in Congress, in major corporate boardrooms, and in universities, has the potential to shape American in the 21st century and beyond. The outcome may determine where you live, how well your children are educated, who will blossom and who will wither in a society where national competitiveness and personal prosperity will likely depend on access to information.

The battle is about who will build, own, use and pay for the high-speed data highways of the future and whether their content will be censored. These vast data highways, capable of sending entire libraries coast-to-coast in a few seconds or sending crucial CAT scans from a remote village to urban specialists, could be linked in a vast network of "highways of the mind."

-Steve Cisler Apple Library sac@apple.com

From: Mitch Kapor <mkapor@eff.org>

Subject: Commercial license for Internet service now possible

There is a favorable climate at the NSF just emerging regarding the granting of "experimental licenses" for commercial services over the Internet. If a prospective vendor had any sort of reasonable plan and was willing to operate under a temporary provision, I believe permission would be granted. Interested parties should probably write to Steve Wolff directly (steve@cise.nsf.gov)

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From: Steve Cisler <sac@apple.com>
Subject: Re: Commercial license for Internet service now possible

Re: commercial services on the Internet. At the recent research and networking conference in Okland, hosted by Meckler Publishing, a person from Stanford confirmed that Mead Data is offering services (Lexis and Nexis) over th Internet.

From: Art Medlar <big-ben!art@apple.com> Subject: How to get the ball rolling

Date: Wed, 13 Mar 91 11:21:42 PST

From: Brewster Kahle <apple!Think.COM!brewster>

Here are some of the databases that I know will be available shortly: 1) On the Connection Machine in Cambridge (in a couple weeks)
King james bible,
Some patents,

Bio-medical abstracts, World factbook

TMC probably has an awfully big collection of technical reports by now. Can they be WAISed? --art